

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of the claims in the application:

Listing of Claims:

1. (Currently Amended) A method of ~~producing diversity-encoded spread-spectrum signals for transmission into a wireless communication channel comprising:~~
generating a spread information signal,
generating a despreading signal,
diversity-encoding at least one of the spread information signal and the despreading signal, and
~~transmitting diversity-encoded spread-spectrum signals by~~ coupling the spread information signal and the despreading signal into ~~the~~ a wireless communication channel.
2. (Currently Amended) The method of ~~producing diversity-encoded spread-spectrum signals recited in~~ claim 1 wherein the despreading signal comprises a noise signal.
3. (Currently Amended) The method of ~~producing diversity-encoded spread-spectrum signals recited in~~ claim 1 wherein the step of generating the a spread information signal includes further comprises duplicating the spread information signal.
4. (Cancelled)
5. (Currently Amended) The method of ~~producing diversity-encoded spread-spectrum signals recited in~~ claim 1 wherein diversity encoding diversity-encoding includes at least one item of a set comprising providing a time offset, polarizing, applying a predetermined directionality, transmitting from a plurality of spatially separated transmitters, modulating with a predetermined carrier frequency, combining with a carrier having a predetermined mode, and transmitting the signals in at least one predetermined subspace channel.

6. (Currently Amended) The method of ~~producing diversity encoded spread spectrum signals recited in~~ claim 1 further comprising a step of modulating the spread information signal and the despreading signal onto a carrier signal.

7. (Cancelled)

8. (Currently Amended) A method of ~~producing diversity encoded spread spectrum signals for transmission into a wireless communication channel comprising:~~

generating at least one an information-bearing wideband signal,

generating at least one a decoding signal,

diversity-encoding at least one of the information-bearing wideband signal and the decoding signal, and

transmitting diversity-encoded spread-spectrum signals by coupling the spread information information-bearing wideband signal and the despreading decoding signal into the a wireless communication channel.

9. (Currently Amended) The method of ~~producing diversity encoded spread spectrum signals recited in~~ claim 8 wherein the information-bearing wideband signal includes a noise signal.

10. (Cancelled).

11. (Currently Amended) The method of ~~producing diversity encoded spread spectrum signals recited in~~ claim 8 wherein the step of diversity encoding diversity-encoding includes at least one item of a set including providing a time offset, polarizing, applying a predetermined directionality, transmitting from a plurality of spatially separated transmitters, modulating with a predetermined carrier frequency, combining with a carrier having a predetermined mode, and transmitting the signals in at least one predetermined subspace channel.

12. (Currently Amended) The method of ~~producing diversity encoded spread spectrum signals~~

~~recited in claim 8~~ further comprising a step of modulating the information-bearing wideband signal and the decoding signal onto a carrier signal.

13-15. (Cancelled)

16. (Currently Amended) A spread-spectrum transmitter comprising:

a wideband-signal generator configured for generating a plurality of wideband signals, at least one of the plurality of wideband signals being ~~designated as~~ a despreading signal,
a modulator coupled to the wideband signal generator and configured for modulating at least one information signal onto at least one of the plurality of wideband signals for generating a spread-spectrum spread information signal,
a diversity processor configured for adjusting at least one diversity parameter of at least one of the spread-spectrum spread information signal and the ~~decoding~~ despreading signal, and
a transmitter configured for transmitting diversity-encoded spread-spectrum signals by coupling the spread-spectrum spread information signal and the despreading signal into the a wireless communication channel.

17. (Currently Amended) A spread-spectrum transmitter comprising:

a wideband-signal generator configured for generating a plurality of wideband signals, at least one of the plurality of wideband signals being ~~designated as~~ a despreading decoding signal,
a modulator coupled to the wideband signal generator configured for modulating information onto at least one of the plurality of wideband signals for generating a spread spectrum an information-bearing wideband signal,
a diversity processor configured for adjusting at least one diversity parameter of at least one of the spread spectrum information-bearing wideband signal and ~~at least one of the plurality of wideband signals~~ decoding signal, and
a transmitter configured for transmitting diversity-encoded spread-spectrum signals by coupling the spread information information-bearing wideband signal and the despreading decoding signal

into ~~the~~ a wireless communication channel.

18-19. (Cancelled)